

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of )

Closed Captioning and )  
Video Description of )  
Video Programming )

MM Docket No. 95-176

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**COMMENTS OF THE ELECTRONIC INDUSTRIES ASSOCIATION**  
**CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION**

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## **EXECUTIVE SUMMARY**

The Commission's actions in this proceeding should be guided by a desire to promote closed captioning and video description, and their attendant public interest benefits, as efficiently as possible. Only where the market has demonstrably failed to provide these assistive services should the Commission intervene. In this regard, the Electronic Industries Association's Consumer Electronics Manufacturers Association ("CEMA") notes that the technology for receiving closed captioning and video descriptions is already well-established and is easily accessible to the general public. The incorporation of these capabilities into Advanced Television ("ATV") technology also is being accomplished through the industry's ATV standards-setting process. Thus, the market has been extremely effective in addressing the equipment needs of citizens with hearing or visual disabilities. To address the limited availability of closed-captioned cable programming, however, further incentives or requirements are likely necessary. Outside its regulatory framework, the Commission can play a pivotal role in promoting public awareness of the availability and benefits of assistive television services. CEMA stands ready to assist the Commission with any such educational or outreach effort.

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**COMMENTS OF THE ELECTRONIC INDUSTRIES ASSOCIATION  
CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION**

The Consumer Electronics Manufacturers Association ("CEMA"), a sector of the Electronic Industries Association ("EIA"), hereby submits the following comments in response to the Notice of Inquiry ("*Notice*") which the Commission issued in the above-captioned proceeding on December 4, 1995.<sup>1</sup>

In the *Notice*, the Commission has inquired about the current availability, cost and uses of closed captioning and video description services, and asks what further Commission actions may be necessary to promote such services.<sup>2</sup> As set forth more fully below, the Commission's actions in this proceeding should be guided by a desire to promote closed captioning and video description, and their attendant public interest benefits, as efficiently as possible. To this end, the Commission should presumptively rely on the marketplace and consumer choice. Only where the market has demonstrably failed to provide these assistive

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<sup>1</sup> See *Closed Captioning and Video Description of Video Programming*, Notice of Inquiry, MM Docket No. 95-176, FCC 95-484 (released Dec. 4, 1995) [hereinafter "*Notice*"].

<sup>2</sup> The *Notice* anticipated congressional concerns in this area. See *id.*, Order, FCC 96-71 (released Feb. 27, 1996); see also Telecommunications Act of 1996, Pub. L. No. 104-104, § 305, 110 Stat. 56 (enacted Feb. 8, 1996).

services should the Commission intervene. Greater efforts, however, could be made to promote public awareness of these services, and CEMA is ready to assist the Commission in any such endeavor.

## **I. INTRODUCTION AND INTEREST OF CEMA**

CEMA is the principal trade association of the consumer electronics industry. It is also a federative member of the EIA. CEMA's member companies design, manufacture, import, distribute and sell a wide variety of consumer electronics equipment, including televisions, radios, computers, videocassette recorders, and tape and compact disc players. CEMA has consistently sought to promote dialogue and develop consensus on the numerous technical and policy issues associated with assistive television services in order to facilitate the smoothest possible implementation of these technologies.

In 1991, CEMA's Television Data Systems Subcommittee ("TDSS") presented the Commission with a draft document developed by television receiver manufacturers and caption service providers. The document defined the digital data format to be inserted in line 21, field 1 of the vertical blanking interval so that television receiver manufacturers would be able to design the closed captioning decoder chips required by law. The work of the TDSS formed the basis for the Commission's rules which specify the technical standards for the reception and display of closed captioning.<sup>3</sup> The TDSS subsequently developed, with the encouragement of the Commission, specifications to enhance closed captioning and related

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<sup>3</sup> See 47 C.F.R. § 15.119 (1995).

services through use of line 21, field 2.<sup>4</sup> In response to a CEMA petition for rulemaking, the Commission authorized the optional transmission of enhanced captioning on line 21, field 2 in 1993.<sup>5</sup>

CEMA's TDSS is generally recognized as the premier repository of expertise regarding the technical issues surrounding the reception and display of closed captioning, and has been requested by the Advanced Television Systems Committee ("ATSC") to develop a closed captioning standard for the ATSC Advanced Television standard. CEMA and TDSS stand ready to assist the Commission in all further rulemakings involving closed captioning and video description standards.

## II. DISCUSSION

In its *Notice*, the Commission asks whether it should take any steps to promote closed captioning and video description services in order to make them more accessible to the estimated 31 million Americans with hearing or visual disabilities.<sup>6</sup> This is a substantial number of citizens and, with the aging of the American populace, one that is likely to grow significantly over time. CEMA and, we trust, the Commission share similar goals regarding the provision

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<sup>4</sup> See *Amendment of Part 15 of the Commission's Rules to Implement the Provisions of the Television Decoder Circuitry Act of 1990*, 6 FCC Rcd 2420, 2431 (1992) (subsequent history omitted).

<sup>5</sup> See *Amendment of the Rules Relating to Permissible Uses of the Vertical Blanking Interval of Broadcast Television Signals*, 8 FCC Rcd 3613 (1993). The efforts mentioned in this paragraph were undertaken by EIA's Consumer Electronics Group, as CEMA was formerly known.

<sup>6</sup> See *Notice* at ¶¶ 1-2.

of closed captioning, video description and similar assistive technologies to this population: both wish to promote wide citizen access with minimal regulatory intervention.

**A. THE COMMISSION SHOULD ENCOURAGE THE MAXIMUM AVAILABILITY OF CLOSED-CAPTIONED TELEVISION PROGRAMMING.**

With the passage of the Closed Captioning Act of 1990, its rapid implementation by the Commission, and the subsequent promotion of closed captioning technology by CEMA and other groups, television programming became widely accessible to the hearing-impaired community. Last year, 25 million television sets capable of receiving closed-captioned programming were sold nationwide.<sup>7</sup>

Although closed captioning will continue to play a critical role in expanding the availability of programming to the hearing impaired, the potential benefits of closed captioning extend beyond the disabled community to virtually every television viewer. Closed-captioned programming is an ideal tool with which to teach spelling, comprehension, and punctuation to children who are learning to read. Thus, this service has immense potential to make television viewing a learning, as well as entertainment, experience for the more than 30 million elementary school children nationwide.<sup>8</sup> Similarly, low-literate adults and English-as-a-second-language students can use closed captioning to improve their reading skills in a convenient and private

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<sup>7</sup> EIA Market Research Department (1995 figures).

<sup>8</sup> *Id.* (1993 figures).

environment, while watching entertainment that adults enjoy. Our Nation has approximately 27 million low-literate adults and 20 million students of English as a second language.<sup>9</sup>

In addition to serving these educational goals, closed captioning is beneficial in environments where noise levels make listening difficult, such as restaurants, waiting areas and kitchens, or where volume is inappropriate, such as during late-night viewing. It is no exaggeration to state that every television viewer can potentially benefit from closed captioning.

Of course, the actual and potential benefits of closed captioning can only be realized if television programming is captioned in the first instance. Closed captioning has become widely available on broadcast television. As the *Notice* points out, the preponderance of network broadcast programming is closed-captioned, including nearly 100 percent of prime-time programming and nearly 100 percent of nationally broadcast public television programming.<sup>10</sup> The *Notice* also points out that the amount of closed-captioned cable programming is far less, constituting only four percent of basic cable programming and 35 percent of premium cable programming.<sup>11</sup>

The Commission has requested comment with respect to the role played by market forces in the provision of closed-captioned programming.<sup>12</sup> EIA submits that such forces and the resulting economic incentives may account for the significant differential in the amount of captioned broadcast and cable programming.

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<sup>9</sup> *Id.*

<sup>10</sup> *See Notice* at ¶ 13.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.* at ¶ 23.



Over-the-air broadcasters rely overwhelmingly on advertising fees as their primary revenue source. The rate that a broadcaster may charge for advertising on a given program is a factor of the size and demographic mix of that program's viewing audience. Inaccessibility of a program to disabled audiences, therefore, has direct negative economic consequences for broadcasters, as manifested through that program's lower ratings in households with hearing-impaired individuals.

By contrast, cable programmers and providers traditionally derive the most significant portion of their revenues through subscription fees which are collected independently of the size of the audience for any *particular* program. Cable providers therefore face fewer negative economic consequences from programming inaccessibility.

In addition, although cable providers are able to "free ride" on the captioning activities of broadcasters for first run and recently syndicated programs, cable programmers rely heavily on catalogs of long-syndicated programming such as "I Love Lucy." Much of this programming was not captioned by broadcasters, and will not be captioned by cable operators as long as inaccessibility brings no meaningful revenue risk.

Because of the differing economic dynamics of the cable and broadcast industries, it is highly unlikely that widespread captioning (or video description) will be adopted by the cable industry unless further incentives or requirements are put into place.<sup>13</sup>

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<sup>13</sup> See also Telecommunications Act of 1996 at § 305.

**B. STANDARDS OR REQUIREMENTS GOVERNING THE TRANSMISSION OF VIDEO DESCRIPTION SHOULD BE ADDRESSED BY A VOLUNTARY INDUSTRY PROCESS IF AND WHEN THE NEED BECOMES APPARENT.**

The Commission, in its *Notice*, refers to the recent innovation of video description, which provides audio descriptions of a television program's key visual elements during pauses in the program's dialogue.<sup>14</sup> The video description is delivered over the Second Audio Program ("SAP") channel which is incorporated into most of today's stereo televisions. The public is increasingly becoming aware of video description as the prices of the devices necessary for receiving the service continue to fall. CEMA is confident that market forces will continue to promote the availability of this equipment to an ever-increasing audience.

The Commission notes that there are currently no FCC standards or requirements governing the transmission of video descriptions, and asks whether there is any need for technical or quality standards to ensure that video descriptions are accessible and understandable to individuals with visual disabilities.<sup>15</sup>

As the Commission notes, eight million Americans have visual disabilities and could conceivably benefit from video description services.<sup>16</sup> CEMA submits that today's competitive marketplace will ensure that at least the equipment needs of these citizens will be met. We have already seen a significant increase in the number of citizens with access to equipment capable of supporting video description. Approximately 52 percent of American

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<sup>14</sup> See *Notice* at ¶ 6.

<sup>15</sup> *Id.* at ¶ 32.

<sup>16</sup> *Id.* at ¶ 11.

households own SAP-compatible stereo televisions, and approximately 20 percent own VCRs capable of recording the SAP channel.<sup>17</sup> It is apparent, then, that equipment standards regarding the reception of video descriptions are currently unnecessary.

Should the Commission nonetheless elect to move ahead with setting technical standards for the provision or transmission of video description, CEMA requests that the process be undertaken in close cooperation with industry groups, and particularly the TDSS. Any additional technical issues can and should be addressed through a voluntary process involving manufacturers, broadcasters, and the video description industry under the auspices of the TDSS. Such new standard setting will likely involve laboratory and field testing by receiver manufacturers and others, and will require a realistic timetable to complete the standards-setting process.

**C. ADVANCED TELEVISION OFFERS SIGNIFICANT NEW OPPORTUNITIES FOR THE PROVISION OF CLOSED CAPTIONING AND VIDEO DESCRIPTION.**

In its *Notice*, the Commission also requests comment on the impact which the implementation of advanced television ("ATV") and the use of digital technology may have on the provision of closed captioning and video description services.<sup>18</sup>

A draft standard for Advanced Television Closed Captioning ("ATV-CC") has been prepared by the TDSS. This ATV-CC standards-setting effort is being carried out in cooperation with the Grand Alliance and the ATSC. Provisions have been made in the ATSC

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<sup>17</sup> EIA Market Research Department (1995 figures).

<sup>18</sup> See *Notice* at ¶ 16.

standard to transport closed-captioning information in the form defined by the TDSS. As with the development of the current line 21 data services standard set forth in ANSI/EIA 608, TDSS is committed to producing an optimized ATV-CC service that will benefit all television viewers.

The implementation of ATV and, in particular, the concurrent increase in capacity will permit the transmission of enhanced captioning and audio services. ATV will permit such enhancements as user selectable caption sizes (*i.e.*, caption "volume control"), a much broader selection of type faces and character sets, and a wide array of presentation options such as different colors and backgrounds. In addition, packetized transmission will allow a variety of audio formats to be transmitted simultaneously.

The enhanced captioning and audio services offered by ATV cannot be replicated by the digital transmission of NTSC programming. Although digitally transmitted, such programming must be converted back to the NTSC format to be viewed on current receivers, and therefore is subject to the same data limitations as conventional analog broadcasts. In comments recently filed in MM Docket No. 87-268, EIA and the EIA Advanced Television Committee urged the Commission to promote HDTV-driven ATV, because HDTV-driven ATV will maximize the many benefits which ATV will bring to the public.<sup>19</sup> The ability to better serve the hearing and visually impaired population of this country is yet another reason for pursuing this goal.

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<sup>19</sup> See Comments of Electronic Industries Association and Advanced Television Committee, MM Docket No. 87-268 (filed Nov. 20, 1995) (responding to *Advanced Television Systems and Their Impact on Existing Television Broadcast Service*, Fourth Further Notice of Proposed Rulemaking and Third Notice of Inquiry, 10 FCC Rcd 10540 (1995)).

**D. THE COMMISSION CAN PLAY A PIVOTAL ROLE IN INCREASING PUBLIC AWARENESS OF THE BENEFITS OF ASSISTIVE SERVICES.**

The Commission also has asked what actions it can take to promote assistive services such as closed captioning and video description. Again, significant steps have already been taken: with the assistance of the consumer electronics industry, equipment capable of receiving assistive services has made substantial market penetration. Today, all new televisions with a screen size over 13 inches can receive closed captioning, and 52 percent of televisions in American households can receive descriptive video. The market has worked extremely well in making hardware compatible with assistive services available to the public.

But widespread availability of these devices is not enough. These assistive features are of no value if assistive services are unavailable *or* if the public is unaware of the features' benefits or existence.

We believe the Commission can play a special role in this area. The Commission is in a unique position to broaden public awareness and employ moral suasion in the broadcast and video programming arena. CEMA urges the Commission to use the power of its office to challenge and encourage broadcasters and cable operators both to provide and to more broadly publicize the availability of assistive services. The Commission could focus national attention on the issue, for example, by providing special recognition to those who have made significant efforts to provide their audiences with captioned and video-described programming. Just as the Malcolm Baldrige Award galvanizes industry to strive for quality, so too can formal Commission recognition inspire programmers and broadcasters to make significant efforts to promote awareness of assistive services.

The Commission could also have a significant impact by educating the public about the *other* assistive services than can be provided through their television sets. For example, if areas with large immigrant populations were made aware that the SAP channel can also provide second-language translation, it would be difficult for local broadcasters to resist the demand for such services.

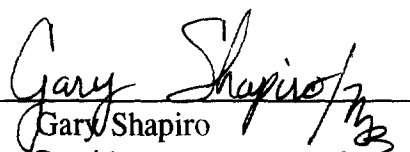
CEMA stands ready to assist the Commission with such an educational and outreach effort. CEMA is prepared to participate in the creation of public service announcements which explain the benefits of assistive services, or that offer the Commission's congratulations for particular efforts to publicize such services. In short, the consumer electronics industry will join and support the Commission's efforts to inform the public of the assistive capabilities of televisions that are already on the market, and the nature of the services that are or could be available.


### III. CONCLUSION

For all the reasons set forth above, CEMA urges the Commission to adopt rules promoting the availability of closed-captioned programming and video description services, relying to the maximum extent feasible on consumer choice and competitive market forces.

Respectfully submitted,

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